

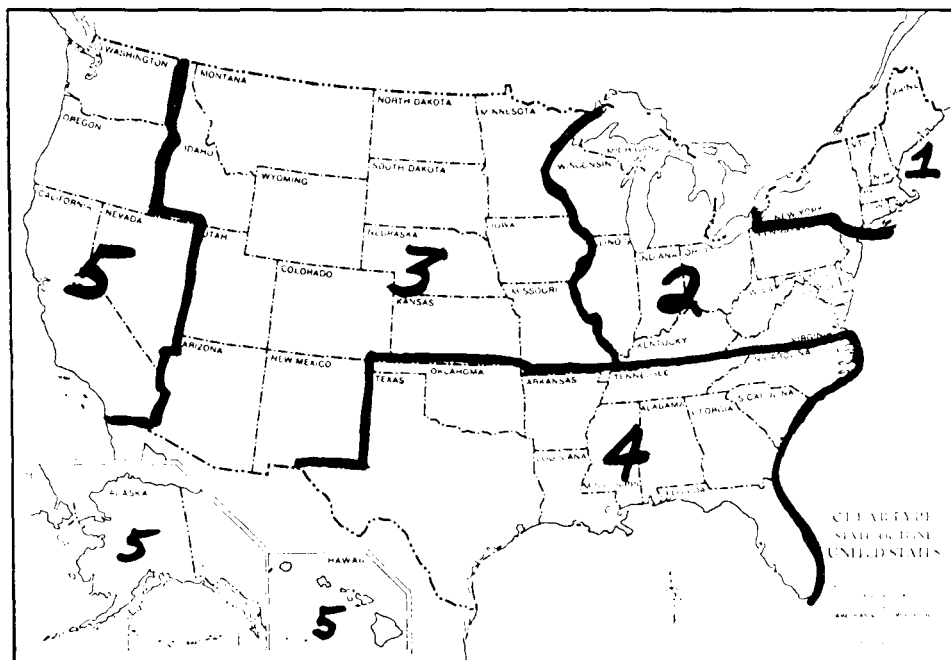
AmSECT PERFUSIONISTS' SURVEY

At the direction of the Board, a survey was conducted of the members of AmSECT. Surveys were mailed to all perfusionists not at the National meeting, those who attended the National meeting received the survey form there. Three hundred eighteen (318) were returned to AmSECT. Approximately 1,200 surveys were distributed to an estimated 1,000 perfusionists which reflects a survey return of about 30%.

The United States was arbitrarily divided into 5 geographical regions and the survey compiled on that basis (see map). It was necessary to construct a sixth region (Region 0). This region included those survey forms on which a geographic area was not indicated.

Where no significant difference in the responses from region to region occurred, the survey was compiled as a national average. Unfortunately, all surveys did not have each question answered, therefore, there will not necessarily be 318 responses for each question.

When a percentage is given, it is for the number of responses received for a specific question, not in relationship to the entire number of questionnaires returned.



EDUCATIONAL BACKGROUND

COLLEGE:	1 year	33
	2 years	58
	3 years	37
	Degree	124 (39%)

PROFESSIONAL SCHOOL

Registered Nurse	66
Inhalation Therapy	19
Medical Technologist	39
Cardiopulmonary Technology	6
Operating Room Technology	18
Radiology Technology	7
Medical Corpsman	15
Physician Assistant	3

PERFUSION TRAINING

On-the-Job	249 (75%)
Graduate, Accredited Perfusion Program	53
Graduate, Non-accredited Perfusion Program	28
Certified Perfusionist	196 (63%)
Board Eligible Perfusionist	100
Other	20

VITAL STATISTICS

Male	234	(74%)
Female	83	
Single	82	(26%)
Divorced	23	(7%)
Married	204	(67%)
Children:	1	70
	2	61
	3	30
	4	17

PRIMARY FACILITY IN WHICH EMPLOYED/PERFUSE

University Hospital	94	(29%)
Community Hospital	197	(61%)
Specialty Hospital	34	(10%)

PERFUSION PERFORMED AT MORE THAN ONE HOSPITAL

Yes	—	102
No	—	211 (67%)

NUMBER OF BEDS

Hospital	0-200	201-400	401-600	601-800	801-1000	1000
Primary	14	97	94	47	34	22
Secondary	8	47	36	14	3	5
Third	3	21	13	3	1	0
Fourth	1	8	4	1	1	0

NUMBER OF PUMP CASES

Hospital	0-100	101-200	201-300	301-500	501-700	701-1000	1001-1500	1501-2000	2501-3000
Primary	56	90	72	57	16	4	7	4	9
Secondary	51	32	9	6	3	0	1	0	0
Third	25	7	4	0	1	0	0	0	0
Fourth	15	2	0	0	0	0	0	0	0

**NUMBER OF PERFUSIONISTS
IN PRIMARY HOSPITAL**

1 —	57
2 —	105
3 —	69
4 —	44
5 —	15
6 —	4
7 —	2
9 —	1
10 —	1
13 —	4
14 —	1
15 —	10
17 —	1

**CORONARY BYPASS PROCEDURES
PERCENTAGE OF TOTAL**

90% - 100%	32
80% - 90%	77
70% - 80%	89
60% - 70%	52
40% - 60%	47
20% - 40%	11
0 - 20%	10

**NUMBER OF CLINICAL
PERFUSIONS YOU HAD
RESPONSIBILITY FOR IN 1976**

0-100	54	15%
101-200	77	22%
201-300	69	20%
301-400	47	13%
+ -400	104	30%

**PERCENTAGE CASE
LOAD INCREASE**

	1976	1975	1974
0 - 5%	57	69	99
5% - 10%	66	64	30
10% - 15%	50	62	37
15% - 20%	82	60	40
+ 20%	19	8	8

CASE DISTRIBUTION

ADULT		
100%	131	41%
97-99%	55	18%
95%	32	10%
90%	20	
85%	12	
80%	26	8%
75%	16	
60%	12	
50%	5	
30%	1	
20%	1	
Less than 5%	3	

**PERCENTAGE CASE
LOAD DECREASE**

	1976	1975	1974
0 - 5%	20	7	8
5% - 10%	5	3	

EMPLOYED BY

Hospital	224
Surgeon	66
Anesthesiology	1
Self	15
Perfusion Corp.	18

ANNUAL BASE SALARY

0 - 1 Year Experience

Region	Responses	Average	Range
0	20	\$15,100	\$10-20,000
1	1	14,000	
2	23	15,650	10-25,000
3	6	13,350	12-16,000
4	20	12,900	10-20,000
5	6	15,850	12-25,000
	<u>76</u>	<u>\$14,475</u>	
	AVERAGE	\$14,475	

ANNUAL BASE SALARY

2 - 3 Years Experience

0	11	\$16,000	\$10-30,000
1	5	15,600	10-16,000
2	18	14,850	10-25,000
3	10	14,800	12-20,000
4	12	12,850	12-16,000
5	9	22,775	12-40,000
	<u>65</u>	<u>AVERAGE</u>	<u>\$16,142</u>

4 - 5 Years Experience

0	12	\$16,425	\$12-30,000
1	4	14,500	10-20,000
2	13	16,850	12-25,000
3	8	14,250	10-20,000
4	4	17,000	10-20,000
5	10	16,400	10-20,000
	<u>51</u>	<u>AVERAGE</u>	<u>\$15,904</u>

ANNUAL BASE SALARY

5 - 7 Years Experience

Region	Responses	Average	Range
0	4	\$17,000	\$12-25,000
1	5	17,400	12-25,000
2	8	17,750	10-25,000
3	3	13,350	12-14,000
4	4	15,500	14-18,000
5	7	28,425	10-50,000
	<u>31</u>	<u>AVERAGE</u>	<u>\$18,237</u>

ANNUAL BASE SALARY

7 - 10 Years Experience

0	6	\$16,650	\$14-25,000
1	4	14,500	12-18,000
2	15	17,250	10-30,000
3	5	17,200	14-18,000
4	7	24,300	16-30,000
5	5	19,400	14-30,000
	<u>42</u>	<u>AVERAGE</u>	<u>\$18,225</u>

ANNUAL BASE SALARY

10 - 15 Years Experience

0	4	\$17,250	\$12-25,000
1	4	20,500	16-30,000
2	2	16,000	14-18,000
3	2	18,000	18,000
4	3	29,650	14-50,000
5	2	25,000	20-30,000
	<u>17</u>	<u>AVERAGE</u>	<u>\$21,050</u>

ANNUAL BASE SALARY

15 - 20 Years Experience

Region	Responses	Average	Range
0	7	\$19,000	\$14-25,000
1	3	18,000	16-20,000
2	8	17,875	12-25,000
3	1	18,000	18,000
4	3	34,000	12-50,000
5	3	27,350	14-50,000
	<u>25</u>	<u>AVERAGE</u>	<u>\$22,400</u>

OVERTIME

Yes 152
No 164 (51.9%)

ANNUAL INCOME FROM OVERTIME

0 - \$2,000 97
\$2,000 - \$4,000 34
\$4,000 - \$6,000 24

ESTIMATED ANNUAL AMOUNT EMPLOYER SPENDS ON YOUR CONTINUING EDUCATION

0 - \$ 500 162
\$500 - \$1,000 90
\$1,000 - \$2,000 29
\$2,000 - \$3,000 14
\$3,000 - \$4,000 1
\$5,000 1

CALL PAY

Yes 116
No 196 (63%)

ANNUAL INCOME FROM CALL PAY

0 - \$2,000 79
\$2,000 - \$4,000 28
\$4,000 - \$6,000 18

ESTIMATED ANNUAL AMOUNT SPENT IN ADDITION TO EMPLOYERS CONTRIBUTION TO YOUR CONTINUING EDUCATION

0 - \$500 240
\$500 - \$1,000 52
\$1,000 - \$2,000 16
\$2,000 - \$3,000 6
\$3,000 - \$4,000 1

DOES EMPLOYER PAY EXPENSES TO ATTEND PERFUSION & MEDICAL MEETINGS

Yes 249
No 66

NUMBER OF MEETINGS REIMBURSED

1 113
2 69
3 97
4 4
5 1
Unlimited 46

IF SELF EMPLOYED, ESTIMATED ANNUAL AMOUNT YOU SPENT ON CONTINUING EDUCATION

0 - \$500 8
\$500 - \$1,000 4
\$1,000 - \$2,000 3
\$2,000 - \$3,000 2

DID ATTAINING CERTIFICATION CHANGE YOUR ANNUAL SALARY

Yes 48 (22%)
No 174

OTHER BENEFITS

Entirely Paid by Employer			Partly Paid by You	
	307	Vacation	16	
	308	Sick Leave	13	
	199	Hospitalization Insurance	99	
YES	91	Does Employer discount amount not covered by insurance?	196	NO
YES	66	Does Employer pay amount not covered by insurance?	208	NO
	140	Disability Insurance (Do Not Include Workman's Compensation	76	
	172	Retirement Plan	88	
	55	Profit Sharing	39	
	37	Other: Car, dental insurance, parking, meals, life insurance, malpractice insurance	7	

INCREASED ANNUALLY DUE TO ATTAINING CERTIFICATION

\$1,000	10
\$2,000	21
\$3,000	9
\$4,000	8

ADMINISTRATIVELY RESPONSIBLE TO:

Chief Perfusionist	57
Hospital Administrator	51
Nursing Service	38
Anesthesia Dept.	17
Surgery Dept.	185
Cardiology Dept.	16
Other	17

DURING CLINICAL PERFUSION, PRACTICALLY SPEAKING, RESPONSIBLE TO:

Chief Perfusionist	19
Anesthesiologist	47
Surgeon	305
Cardiologist	7
Other	3

CORONARY PERFUSION

Yes	72
No	97
Sometimes	78
Only on aortic valves	12

AREAS OF RESPONSIBILITY IN ADDITION TO CLINICAL PERFUSION:

Blood gases	147
Flow measurements	212
Cardiac catheterization lab	76
Intensive Care Assistant	55
Physician Assistant for Surgeon	68
Auto transfusion	133
Intra Aortic Balloon in ICU/Recovery	184
Intra Aortic Balloon in Surgery	212
Intra Aortic Balloon during Bypass	175
Monitoring equipment in ICU/Recovery	107
Monitoring equipment in Surgery	181
Long Term Partial Support	132
Activated Clotting Time	125
Protimine Titration	59
Assist in Surgery	94
Dialysis	15
Other	80

PERFUSION

Film oxygenators	3
Bubble oxygenators	258
Membrane oxygenators	39
Membrane oxygenators, some bubblers	12
Bubble oxygenators, some membranes	40

DIFFERENTIAL HYPOTHERMIA

Yes	198
No	84

ARTERIAL LINE FILTRATION

Yes	186
No	97
Sometimes	28

**ARTERIAL LINE
FILTRATION TYPE**

Screen	155
Depth	51

WHY

Bubble trap	184
Microemboli	160
Fat Emboli	123
Microaggregates	149

**EXTERNAL CARDIOTOMY
FILTRATION**

Yes	276
No	26
Sometimes	25

**EXTERNAL CARDIOTOMY
FILTRATION TYPE**

Screen	129
Depth	152

SYSTEMIC HYPOTHERMIA

Always	169
Usually	132
Seldom	16
Never	2
Only on aortic valves	12

SYSTEMIC HYPOTHERMIA TYPE

Mild (32° - 37° C)	60
Moderate (28° - 32° C)	267
Deep (18° - 28° C)	85
Profound (0° - 18° C)	22

**PROFOUND HYPOTHERMIA ON
COMPLICATED PEDIATRIC CASES**

Always	27
Usually	67
Seldom	53
Never	50

**PROFOUND HYPOTHERMIA AND
CIRCULATORY ARREST ON
PEDIATRIC CASES**

Always	17
Usually	50
Seldom	60
Never	57

**MYOCARDIAL PRESERVATION
TECHNIQUE USED**

Electrical fibrillation	204
Topical cooling	238
Core cooling	180
Root cooling	98
Coronary perfusion	144
Pharmacological arrest	102
None	1
Other	6

PULSATILE PERFUSION

Yes	61
No	192

**WHO IS RESPONSIBLE FOR
CHOOSING THE OXYGENATOR/
OXYGENATORS ROUTINELY
USED IN YOUR HOSPITAL?**

Chief Perfusionist	141
You	194
Surgeon	169
Anesthesiologist	3
Cardiologist	4
Committee	5
Other	5

WHO CHOOSES THE
OXYGENATOR TO BE USED ON
A SPECIFIC CASE

Chief Perfusionist	99
You	233
Surgeon	99
Anesthesiologist	3
Cardiologist	2
Committee	0
Other	1

HOW MANY DIFFERENT TYPES OF
OXYGENATORS DO YOU USE

1	128
2	117
3	48
4	20
5	11
6	7

PERFUSION RECORD

Do you use a standard perfusion record on each case?

Yes	325
No	3

Is a copy of this record placed in the patient's hospital record?

Yes	216
No	112

Is the perfusion record kept by the anesthesiologist?

Yes	231
No	309

MONITORING

During bypass, do you routinely monitor:

Arterial blood gases	144
Arterial & venous blood gases	198

How frequently, assuming normal perfusion?

Every 10 minutes	8
Every 15 minutes	72
Every 20 minutes	69
Every 30 minutes	136
Every 45 minutes	13
Every 60 minutes	20

During bypass, do you routinely monitor

Arterial pressure	327
Arterial pressure	327
Left atrial pressure	124
Electroencephalogram (EEG)	50
Venous pressure	270
Arterial line pressure	167
Electrocardiogram (ECG)	274
Temperature	24
Other	63

Is there a written protocol you use for clinical perfusion?

Yes	125
No	188

Is there a verbal protocol you use for clinical perfusion?

Yes	234
No	47

Do you use the same volume of prime for almost every adult case?

Yes	243
No	85

	Chief Perfusionist	Yourself	Surgeon	Anesthesiologist	Cardiologist	Other
Who devised the perfusion protocol?	112	139	97	15	6	4
Who manages fluid therapy during perfusion (volume added, type of fluid)?	42	210	26	59	4	0
Who manages heparin maintenance during perfusion?	28	185	25	107	3	3
Who determines the adequacy of perfusion?	43	218	52	51	5	0
Who determines corrective measures if perfusion is inadequate?	44	212	76	71	7	0
Who decides to give osmotic agents?	28	160	89	117	6	1
Who decides to give diuretics?	34	151	97	150	5	0
Who decides to give vasopressors?	30	142	101	171	6	0
Who decides to give vasodilators?	29	140	82	179	7	0

EXPERIENCE DISTRIBUTION OF PERFUSIONISTS COMPLETING SURVEY

